

What is claimed is:

1. An isolated nucleic acid molecule having a first nucleotide sequence, wherein: (1) the first nucleotide sequence hybridizes under stringent conditions to a second nucleotide sequence selected from the group consisting of SEQ ID NO: 1 through SEQ ID NO: 8283, wherein the hybridizing portion of the second nucleotide sequence is at least 50 nucleotides in length; (2) the first nucleotide sequence is a portion of the third nucleotide sequence selected from the group consisting of SEQ ID NO: 1 through SEQ ID NO: 8283 and is at least 50 nucleotides in length; (3) the first nucleotide sequence encodes a *B. thuringiensis* polypeptide or protein, wherein the *B. thuringiensis* polypeptide or protein is any polypeptide or protein set forth in Table 1; or (4) the first nucleotide sequence is the complement of (1), (2) or (3).
2. The isolated nucleic acid molecule of claim 1, wherein: (1) the first nucleotide sequence hybridized under stringent conditions to the second nucleotide sequence, wherein the hybridizing portion of the second nucleotide sequence is at least 100 nucleotides in length; or (2) the first nucleotide sequence is the complement of (1).
3. The isolated nucleic acid molecule of claim 2, wherein the hybridizing portion of the second nucleotide sequence is at least 200 nucleotides in length.
4. The isolated nucleic acid molecule of claim 1, wherein: (1) the first nucleotide sequence is the portion of the third nucleotide sequence selected from the group consisting of SEQ ID NO: 1 through SEQ ID NO: 8283 and is at least 50 nucleotides in length; or (2) the first nucleotide sequence is the complement of (1).
5. The isolated nucleic acid molecule of claim 4, wherein the portion of the third nucleotide sequence is a regulatory sequence.
6. The isolated nucleic acid molecule of claim 4, wherein the portion of the third nucleotide sequence is a promoter or partial promoter sequence.
7. The isolated nucleic acid molecule of claim 1, wherein: (1) the first nucleotide sequence encodes a *B. thuringiensis* polypeptide or protein, wherein the *B. thuringiensis* polypeptide or protein is

any polypeptide or protein set forth in Table 1; or (2) the first nucleotide sequence is the complement of (1).

8. The isolated nucleic acid molecule of claim 7, wherein the first nucleotide sequence encodes a *B. thuringiensis* polypeptide or protein which is any one set forth in Table 1.
9. The isolated nucleic acid molecule of claim 8, wherein the *B. thuringiensis* polypeptide or protein is an insect inhibitory protein or polypeptide homologue.
10. The isolated nucleic acid molecule of claim 8, wherein the *B. thuringiensis* protein or polypeptide is a sigma factor homologue.
11. The isolated nucleic acid molecule of claim 8, wherein the amino acid sequence of the *B. thuringiensis* polypeptide or protein is selected from the group consisting of SEQ ID Nos: 33, 98, 145, 162, 180, 204, 275, 298, 361, 397, 421, 423, 579, 613, 624, 692, 726, 862, 930, 950, 986, 995, 1005, 1023, 1130, 1188, 1190, 1208, 1226, 1227, 1240, 1246, 1246, 1257, 1272, 1302, 1339, 1355, 1374, 1393, 1426, 1460, 1471, 1526, 1854, 1914, 1923, 2151, 2179, 2211, and 2304.
12. The isolated nucleic acid molecule of claim 8, wherein the *B. thuringiensis* polypeptide or protein is a transposase homologue.
13. The isolated nucleic acid molecule of claim 8, wherein the *B. thuringiensis* polypeptide or protein is an integrase homologue.
14. The isolated nucleic acid molecule of claim 8, wherein the *B. thuringiensis* polypeptide or protein is selected from the group consisting of 2, 64, 226, 379, 383, 387, 410, 416, 546, 555, 603, 642, 644, 660, 691, 691, 781, 799, 980, 1002, 1045, 1072, 1098, 1190, 1207, 1214, 1252, 1273, 1275, 1305, 1317, 1330, 1340, 1353, 1354, 1362, 1378, 1378, 1380, 1383, 1386, 1386, 1388, 1391, 1392, 1549, 1573, 1611, 1698, 1725, 1739, 1804, 1869, 1902, 1965, 2041, 2049, 2130, 2135, 2153, 102, 1340, 1795, 1797, 1989, 2055, 2057, 2248, 14, 296, 722, 834, 834, and 999.
15. The isolated nucleic acid molecule of claim 8, wherein the *B. thuringiensis* protein or polypeptide has antibiotic, heavy metal, or other chemical resistance properties.

16. The isolated nucleic acid molecule of claim 8, wherein said nucleic acid molecule further comprises a promoter or partial promoter region.
17. A substantially purified *B. thuringiensis* polypeptide or protein comprising an amino acid sequence, wherein the amino acid sequence is defined as follows: (1) the amino acid sequence is encoded by a first nucleotide sequence which specifically hybridizes to the complement of a second nucleotide sequence selected from the group consisting of SEQ ID No: 1 to SEQ ID No: 8283; or (2) the amino acid sequence is encoded by a third nucleotide sequence that is at least 50% identical to an open reading frame set forth in Table 1.
18. The substantially purified *B. thuringiensis* polypeptide or protein of claim 17, wherein the *B. thuringiensis* polypeptide or protein is any protein or polypeptide set forth in Table 1.
19. The substantially purified *B. thuringiensis* protein or polypeptide of claim 18, wherein the *B. thuringiensis* protein or polypeptide is an insect inhibitory protein.
20. The substantially purified *B. thuringiensis* protein or polypeptide of claim 18, wherein the *B. thuringiensis* protein or polypeptide is a sigma factor homologue.
21. The substantially purified *B. thuringiensis* protein or polypeptide of claim 18, wherein the *B. thuringiensis* protein or polypeptide is a transposase homologue.
22. The substantially purified *B. thuringiensis* protein or polypeptide of claim 18 wherein the *B. thuringiensis* protein or polypeptide is an integrase homologue.
23. The substantially purified *B. thuringiensis* protein or polypeptide of claim 18, wherein the *B. thuringiensis* protein or polypeptide is a toxin or toxin homologue.
24. The substantially purified *B. thuringiensis* protein or polypeptide of claim 18, wherein the *B. thuringiensis* protein or polypeptide has antibiotic, heavy metal, or other chemical resistance properties.

25. A transformed cell comprising an exogenous nucleic acid molecule which comprises:
- a) an exogenous promoter region which functions in said cell to cause the production of an mRNA molecule; which is operably linked to
 - b) a structural nucleotide sequence, wherein said structural nucleotide sequence encodes a *B. thuringiensis* protein or polypeptide which is any protein or polypeptide set forth in Table 1; which is operably linked to
 - c) a 3' non-translated sequence that functions in said cell to cause termination of transcription.
26. The transformed cell according to claim 25, wherein the *B. thuringiensis* protein or polypeptide is an insect inhibitory protein or polypeptide.
27. The transformed cell according to claim 25, wherein said *B. thuringiensis* protein or polypeptide is a sigma factor homologue.
28. The transformed cell according to claim 25, wherein said *B. thuringiensis* protein or polypeptide is a transposase homologue.
29. The transformed cell according to claim 25, wherein said *B. thuringiensis* protein or polypeptide is an integrase.
30. The transformed cell according to claim 25, wherein said *B. thuringiensis* protein or polypeptide is a protein homologue having antibiotic resistance properties.
31. The transformed cell according to claim 25, wherein said *B. thuringiensis* protein or polypeptide is a toxin or toxin homologue.
32. The transformed cell according to claim 26, wherein said cell is selected from the group consisting of a bacterial cell, a plant cell, an algal cell, a mammalian cell, an insect cell and a fungal cell.
33. A transformed plant comprising an exogenous nucleic acid which comprises:

- a) an exogenous promoter region which functions in a plant cell to cause the production of an mRNA molecule; which is operably linked to
- b) a structural nucleotide sequence encoding a polypeptide or protein set forth in Table 1; which is operably linked to
- c) a 3' non-translated sequence that functions in said plant cell to cause termination of transcription and addition of polyadenylated ribonucleotides to the 3' end of said mRNA molecule.

34. The transformed plant of claim 33, wherein the polypeptide or protein is an insect inhibitory polypeptide or protein.

35. The transformed plant according to claim 33, wherein said plant is a monocot or a dicot plant.

36. A computer readable medium having recorded thereon one or more nucleotide sequences, wherein each of the nucleotide sequences is selected from the group consisting of SEQ ID NO: 1 through SEQ ID NO: 8283 or complements thereof.

37. The computer readable medium according to claim 36, wherein each of the nucleotide sequences or complements thereof encodes a *B. thuringiensis* protein or polypeptide.

38. A method for generating a transgenic plant comprising the steps of: a) introducing into the genome of the plant an exogenous nucleic acid, wherein the exogenous nucleic acid comprises in the 5' to 3' direction i) a promoter that functions in the cells of said plant, said promoter operably linked to; ii) a structural nucleotide sequence encoding a polypeptide or protein set forth in Table 1, said structural nucleic acid sequence operably linked to; iii) a 3' non-translated nucleic acid sequence that functions in said cells of said plant to cause transcriptional termination; b) obtaining transformed plant cells containing the nucleic acid sequence of step (a); and c) regenerating from said transformed plant cells a transformed plant in which said polypeptide or protein is overexpressed.

39. The method of claim 38, wherein the protein or polypeptide is an insect inhibitory polypeptide or protein.

40. A method for identifying one or more genes encoding insect inhibitory proteins in the sequences of one or more plasmids of a *Bacillus thuringiensis*, the method comprising the steps of:
- a) isolating and purifying plasmid DNA;
 - b) constructing a DNA library from the isolated and purified plasmid DNA;
 - c) sequencing the DNA library to obtain a set of plasmid DNA sequences;
 - d) comparing the set of DNA sequences with a set of chromosomal DNA sequences, wherein the set of chromosomal DNA sequences comprises the group consisting of SEQ ID No: 1 through SEQ ID No: 8283;
 - e) identify common sequences, which are identified both in the set of plasmid DNA sequences and in the set of chromosomal DNA sequences;
 - f) subtracting the common sequences from the set of plasmid DNA sequences to obtain a subtracted set of plasmid DNA sequences;
 - g) assembling the subtracted set of DNA sequences to contigs and sequences;
 - h) determining open reading frames in the contigs and sequences; and
 - i) identifying one or more genes encoding insect inhibitory proteins in the sequences of one or more plasmids of said *Bacillus thuringiensis*.
41. A method for identifying plasmid DNA sequences of a *Bacillus* species, the method comprising the steps of:
- a) identifying a *Bacillus* species strain which does not contain plasmid DNA;
 - b) generating a library of chromosomal genomic DNA from said *Bacillus* species strain which does not contain plasmid DNA;
 - c) obtaining the nucleotide sequence of said chromosomal genomic DNA;
 - d) identifying a *Bacillus* species strain which contains plasmid DNA;
 - e) generating a library of said *Bacillus* species plasmid DNA;
 - f) obtaining the nucleotide sequence of said plasmid DNA;
 - g) subtracting any common sequences identified in the plasmid DNA which are also identified in the chromosomal genomic DNA; and
 - h) constructing contigs and sequences of said plasmid DNA;
- wherein said contigs and sequences comprise the plasmid DNA sequence of said *Bacillus* species.

42. The method according to claim 41 wherein said *Bacillus* species is selected from the group consisting of *Bacillus thuringiensis*, *Bacillus subtilis*, *Bacillus cereus*, and *Bacillus anthracis*.
43. The method according to claim 42 wherein said *Bacillus* species is *Bacillus thuringiensis*.
44. The method of claim 41 wherein the nucleotide sequence of said chromosomal genomic DNA comprises the sequences selected from the group consisting of SEQ ID NO:1 through SEQ ID NO:8283.
45. The method of claim 41 wherein said *Bacillus* species strain contains less than two naturally occurring plasmids.
46. The method according to claim 45 wherein said *Bacillus* species strain is EG 10650.
47. The method of claim 45 wherein said less than two naturally occurring plasmids is selectively tagged with an identifiable marker gene.
48. The method according to claim 46 wherein said marker gene is selected from the group consisting of an antibiotic resistance gene, a gene encoding an essential metabolic or catabolic protein or functional homologue thereof, a gene conferring bioluminescence properties, and a gene encoding an enzyme which catalyzes the metabolism of a substrate which imparts a colored product deposited on or within the *Bacillus* species strain.
49. An isolated and purified nucleic acid sequence selected from the group consisting of SEQ ID NO:1 through SEQ ID NO:8283
50. An isolated and purified *Bacillus thuringiensis* protein or polypeptide which is selected from the group consisting of proteins or polypeptides identified in Table 1.

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